DOCUMENT RESUME

ED 059 442 AC 012 303

AUTHOR	Milan, Michael A.
TITLE	An Ecological Experiment in Corrections: A Programmed Environment for Behavior Modification.
INSTITUTION	Rehabilitation Research Foundation, Elmore, Ala. Draper Correctional Center.
SPONS AGENCY	Manpower Administration (DOL), Washington, D.C.
PUB DATE	Jan 71
NOTE	40p.
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	Adult Programs; Behavioral Science Research; *Behavior Change; *Correctional Rehabilitation; Crime; *Demonstration Projects; *Ecological Factors; Economics; *Environmental Influences; Environmental Research; Innovation; Law Enforcement; Males; Problem Solving; Program Evaluation; Reinforcement; Remedial Instruction

ABSTRACT

The problem of a steadily rising crime rate and an apparent inability of existing legal, judicial, and penal procedure to serve as either deterrents to or modifiers of criminal behavior are presented. The point is made that the principles of behavior modification derive primarily from basic research performed within the framework of the experimental analysis of behavior. The Rehabilitation Research Foundation has been involved in the design, implementation, evaluation, and dissemination of innovative correctional programs for a number of years. It is proposed that the next logical step in the utilization of these techniques in corrections be taken: the development and evaluation of a token economy within the institution itself. The proposed demonstration project will: (1) Establish a token economy in one cell block of a large correctional institution for adult, male offenders (felons); (2) Examine the effectiveness of a system based upon positive reinforcement; (3) Develop a remedial educational program tailored to the correctional setting; (4) Determine the impact of various token reinforcement procedures; and (5) Evaluate the effect of token economy upon post-release adjustment and recidivism. The project has three phases. Phase I will consist of an initial observation period. Phase II will involve the institution and maintenance of the token economy. Phase III will consist of postrelease follow-up. Follow-up data will be used for validation and intervention purposes. (CK)

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

AN ECOLOGICAL EXPERIMENT IN CORRECTIONS:
A Programmed Environment for Behavior Modification

prepared by

Michael A. Milan, Ph.D.
Research Psychologist
Experimental Manpower Laboratory for Corrections

for the

U. S. Department of Labor
Manpower Administration

under

Contract No. 82-41-69-06

Rehabilitation Research Foundation
John M. McKee, Ph.D., Director
January, 1971

PREFACE

Since 1964 the Rehabilitation Research Foundation, under the auspices of the U. S. Departments of Labor and Health, Education and Welfare, has been involved in the design, operation, and evaluation of innovative basic education and vocational training programs tailored to the particular rehabilitative needs of adult, institutionalized offenders. The results of these programs have been highly encouraging: One 18-month study of released offenders who participated in the Foundation's projects and were placed in training-related employment has revealed a recidivism rate of only 30%, while the recidivism rate for comparable released offenders not participating in such training is commonly reported to be in excess of 60%. The implications of these findings are clear.

A severely limited education and an almost complete lack of marketable vocational skills are characteristic of the typical institutionalized offender. To return him to society with these same disadvantages and the added stigma of imprisonment is to sentence him to the same environment which contributed greatly to his institutionalization in the first place. The fact that the rural and urban ghettos of our society- environments permeated with the antecedants of crime–are significantly related to increased recidivism rates is no longer in question. The cycle of imprisonment - release - reimprisonment can, as the Foundation has demonstrated, be broken. Human lives can be salvaged, manpower resources can be more fully tapped, and offenders can cease being tax burdens and become instead satisfied, contributing members of our society. But if this is to be accomplished, if the ultimate goal of institutionalization is the rehabilitation of the offender and his reintegration into society, it is apparent that correctional centers must implement basic education and vocational training regimens similar to those which have been developed and proven to be effective.

As important as these programs are, however, they are not as effective as they might be. What factors in addition to those surrounding employability, but perhaps related to them, contribute to recidivism? Insights into the answers to this question came as a result of the Foundation's initial involvement with the employability problem. As the Foundation conducted its basic education and vocational training programs it became apparent that changes had to be made in the correctional institutions themselves if such programs were to be maximally effective. Central to these changes is the need to eliminate the artificial dichotomy between custody and treatment. Too often these two phases of institutional

operation appear as warring factions, frequently working at cross purposes rather than coordinating their efforts in an attempt to realize common institutional goals. The identification of the effects of this dichotomy points out what are frequently unrealistic expectations built around institutional programs which deal solely with such treatment procedures as counseling, basic education, and vocational training. These programs should be viewed, instead, as only a portion of a comprehensive rehabilitative regimen which must be expanded to encompass all aspects of institutional life.

The process of rehabilitation involves considerably more than providing the inmate with employability skills. It must also include the modification of a behavioral and attitudinal complex which, if left unaltered, increases the probability that the released offender will again engage in antisocial behavior and will eventually be reinstitutionalized. Although basic education and vocational training programs appear to have the potential of reducing recidivism, the behavioral and attitudinal complex which predisposes the released offender to engage in criminal activities frequently blocks the full realization of this potential.

Treatment personnel, by nature of their training, orientation, and the appropriate design of rehabilitative programs, do attack these behaviors and attitudes. It has become obvious, however, that this is not sufficient and that, in order to effect the degree of change which is necessary to maximize postrelease success and non-recidivism, this attack must be extended into the institutions themselves. Custody personnel, in general, rely upon techniques of behavior management (punishment and aversive control procedures) which are more likely to instill and strengthen antisocial behaviors than they are to weaken and eliminate them. The result, of course, is that what is accomplished by treatment personnel is, by and large, nullified by custodial personnel.

A first step in bridging the gap between custody and treatment personnel is to provide members of the line correctional staff new techniques of behavior control which will diminish their reliance upon the punishment model of institutional control and, at the same time, will better enable them to fulfill their custodial function. If properly structured, training in these new techniques may shift the custodial staff's orientation sufficiently towards rehabilitation to alter the regressive psychological environment existant in the vast majority of correctional institutions. However, if the probability that there will be significant changes in custodial staff-inmate relations is to be maximized, and if custody and rehabilitation are to be viewed as complimentary functions conducted through the coordinated efforts of both respective staffs, additional steps in the reorganization of institutional policies must be undertaken.

The institutional environment must be restructured in such a fashion as to simultaneously meet the requirements of custody personnel, relative to the routine maintenance of the institution, as well as the needs of treatment personnel, relative to the 24 hour a day operation of a broad-spectrum rehabilitation program. Only when this is accomplished will the correctional center be most capable of fulfilling its rehabilitative role. A true "therapeutic environment" will emerge in which both treatment and custody personnel will operate in terms of a new set of goals common to both groups, and which will provide the basis for a unified correctional effort. The substance of this proposal represents a step in this direction--towards merging the objectives of both custody and treatment under one set of behavioral control techniques which has the potential of simultaneously serving both ends. Only by so doing can the manpower training programs initiated in correctional institutions be maximally effective.

STATEMENT OF THE PROBLEM

During recent years increased public concern over what appears to be a steadily rising crime rate and an apparent inability of existing legal, judicial, and penal procedure to serve as either deterrents to or modifiers of criminal behavior has been reflected in the widespread demand for reform of the criminal justice system and in an intensive search for effective crime control procedures. Although it has been suggested that it may be both undesirable and impossible to completely eliminate criminal behavior (Durkheim, 1938), it is now critical, for both humanitarian and ecomomic reasons, that programs which reduce the incidence of crime be developed and instituted. Such programs must attack crime and its associated problems on all fronts. Some must move towards the elimination of those conditions which appear to be the antecedents of most crime in our country: unemployment, poverty, the ghetto, ignorance, injustice, the broken family, and social, ecomonic, and educational discrimination, to name only a few. Others must be established to provide preventative intervention for those individuals, both juvenile and adult, who appear likely to engage in serious antisocial behavior. The constitutional limitations of law enforcement agencies and the criminal justice system must be specified and, within these limitations, the effectiveness of the police and the efficiency of the courts drastically upgraded. More extensive utilization of pre-trial diversionary procedures appears both feasible and warranted. In working with the convicted offender, more frequent and more effective use must be made of probation and parole services, as well as the services provided by the various referral agencies. Finally, it appears that corrections, long neglected by both the public and the professional community, demands close examination, and that its policies, procedures, and scope require almost complete revision.

Institutionalization is commonly depicted as serving at least four major functions. First, and despite the fact that virtually all those imprisoned eventually return to society, it is viewed as an effective means of protecting members of society from those who would transgress against them. The second, retribution, reflects the expectations of society in general and is manifest, within the criminal justice system, as the rather tenuous assumption that it is possible to scale the severity of any given offense along one or more dimensions (e.g., amount of money, length of probation, duration of imprisonment). Third, institutionalization is assumed to fulfill both a general deterrant role, relative to those who would engage in criminal activities but refrain from so doing in response to the threatened consequences; and a specific deterrent role, relative to those who have done so, were imprisoned, and, as a result of this and the threat of reimprisonment, no longer

do so. A further distinction concerning the deterrent effects of imprisonment may also be made: The effect may be either partial, wherein the rate of criminal behavior is reduced relative to some baseline condition; or complete, wherein the behavior is completely eliminated. Finally, it is expected that a period of institutionalization will be utilized to prepare the offender for release and insure that he will assume a non-criminal role following his return to society.

Of these four functions, the first, imprisonment for the protection of society, is only a stop-gap measure. The second and third, retribution and deterrance, both involve moral and ethical questions beyond the scope of this proposal. In addition, the deterrent effect of imprisonment is an assumption neither proven nor disproven by rigorous empirical investigation. The fourth, rehabilitation, is a goal all would agree is far from being realized. However, rehabilitation, unlike the other three functions of imprisonment, does offer the possibility of a definite, long-term, realistic end which lends itself to experimental investigation and consequent program evaluation.

If the potential of rehabilitative efforts is to be fully realized, the predominantly punitive role corrections now plays must give way to a rehabilitative and preventative one. More extensive use must be made of progressive programs, such as conjugal visitation, prerelease, work and study release, home furloughs, halfway houses, and follow-up procedures which keep the inmate in touch with society, ease his integration into society, and maximize the probability of his successful postrelease adjustment. Perhaps even more critical in determining whether or not the institutionalized offender will refrain from engaging in criminal behavior and will instead assume a productive role in society following his release are the policies and procedures of the institution themselves, and the rehabilitation programs which are operative there.

Although professionals in corrections may not be in accord as to which specific approach to adopt, they would agree that the correctional procedures practiced in penal institutions throughout this country require drastic overhaul. The vast majority of institutions now desginated "correctional centers" serve merely as warehouses of humanity (Menninger, 1968), providing the men and women referred to their care nothing more than custody, maintenance, and "punishment" in the form of menial work little related to gainful employment. Closely related to the functions which penal institutions do in fact fulfill are the policies and procedures which have evolved to enable the management of inmate behavior. Central to these is the reliance upon punishment (including timeout procedures) to insure the maintenance of order and discipline, and the utilization of aversive

control techniques (escape and avoidance contingencies) in order to coerce inmates to perform routine maintenance tasks and work assignments.

When appropriately employed, punishment and aversive control procedures do effectively control behavior (a factor which generates considerable resistance from the institutional staff against attempts to implement alternative procedures). However, there is now reason to believe that these techniques have numerous side effects which may be deemed undesirable when viewed within the broad context of inmate rehabilitation. Recent experimental investigations of the effects of punishment upon behavior indicate that it produces a number of by-products (Azrin and Holz, 1966) which, if extrapolated to the punishment procedures employed in penal institutions, argue against its desirability as a technique of behavioral control. To the degree that the punishment procedures employed in the correctional setting are analogs of those subjected to detailed experimental analysis, they would be predicted to result in analogous by-products. The experimental evidence indicates that when punishment is regularly administered the punished individual (the inmate) tends to avoid personal contact with the punishing agents (the correctional staff). In addition, punishment calls forth from the punished individual aggression which is directed towards the punishing agent and/or peers not themselves responsible for the punishment. It appears, then, that the correctional officer who relies upon punishment to control inmate behavior destroys his ability to interact with the inmate and, consequently, whatever potential he possesses to serve as a rehabilitative agent.

Viewed within this framework, the inmate contra-culture is a predictable outcome of the extensive use of punishment, for it effectively diminishes the efficiency with which the institutional staff can implement punishment oriented procedures. Furthermore, any rehabilitative program superimposed upon a system which employs punishment to maintain order and discipline would be expected to encounter this same opposition and, as a consequence, to have its effectiveness severly limited, if not nullified. Finally, the correctional officer and supervisory personnel represent authority and the "system" in the institution and, to the extent that antisocial behaviors acquire in the institution and fostered by the inmate contra-culture generalize to society in general, the greater will be the likelihood that the released offender will again engage in criminal activities and will eventually be reinstitutionalized.

It also appears that the extensive use of aversive control procedures to coerce individuals into action generates reactions similar to those resulting from the use of punishment. Individuals resist aversive control procedures, they work against the system

which employs such techniques, and they counterattack, either verbally or physically, both those who represent the system and those who support it. Skinner (1968) posits that individuals who work mainly to escape or avoid aversive consequences discover other means of escaping. In the institutional setting the alternatives employed are limited only by the ingenuity of the inmates, typically involving various forms of deceptions, coersion of peers, and, in some cases, instances of elaborate shaping procedures directed towards the modification of the behavior of correctional officers. As with punishment, the utilization of aversive control is undoubtedly partially responsible for the inmate contra-culture, for widespread adherence to its code often allows circumvention of institutional prescriptions and avoidance of undesirable consequences.

Another apparent result of the extensive use of aversive control procedures is inaction--the controlled individual does nothing more than that which he is forced to do. In the institution inmates are often depicted as sullen, stubborn and unresponsive, an expected result of the procedures employed. Compounding the by-products of aversive control are the suppressive effects of punishment and the lack, within most correctional centers, of any systematic encouragement of initiative or self-improvement. Adherence to the inmate contra-culture is the primary means the inmate has at his disposal to obtain those things, both tangible and intangible, which he desires.

A problem equal in seriousness to the overt behavioral reactions to punishment and aversive control are the emotional and attitudinal components of these reactions. Fear and anxiety are characteristic of escape and avoidance, anger and hostility of resistance and counterattack, and resentment of sullen inaction (Skinner, 1968, p. 99); these, in turn, are the classical features of psychosomatic illness, juvenile delinquency, and the criminal. Combine them with the antisocial behavioral predispositions stemming from the existant control procedures and fostered by the inmate contra-culture and it appears that Ramsey Clark (1970) is correct: Correctional institutions are indeed "factories of crime."

Although remedial basic education and vocational training are necessary requisites in the design of a rehabilitative regimen for institutionalized offenders, the success of such programs, as indexed by recidivism rates (Draper Project Final Reports, 1968), indicates additional procedures must be introduced if their potential is to be fully realized. It appears that the institutions themselves must adopt a behavioral management system capable of meeting at least six critical requirements: First, the system must insure the maintenance of order and discipline with only minimal reliance upon the threat of punishment as a control procedure. Second, it must provide for the performance of

necessary maintenance tasks and work assignments without primary recourse to the coersive use of aversive control procedures. These two requirements are obviously closely related and, if met, attack what may be the most significant conditions underlying the inmate contra-culture. Third, the system must be one which the correctional staff, with appropriate training and supervision, is capable of administering. Fourth, it should enable the line correctional officer--the man who has daily contact with the inmate--to participate in the rehabilitation program rather than function as an agent of punishment. Fifth, the behavioral management system should be compatible with and foster the inmates' participation in formalized rehabilitation programs. Finally, the system should approximate, as closely as possible those controlling conditions which exist in society itself for, by so doing, the system best prepares the inmate for integration into that society. The methodology and techniques which often the greatest potential of fulfilling these requirements are those which fall within the general domain of behavior modification.

THE POTENTIAL ROLE OF BEHAVIOR MODIFICATION IN CORRECTIONS

The principles of behavior modification derive primarily from basic research performed within the framework of the experimental analysis of behavior; a growing psychological discipline which possesses a number of defining characteristics, one of which is an emphasis upon the intensive study of the individual subject. It is not suprising, therefore, that the bulk of the research involving the extension of these laboratory-derived principles to the applied setting generally consists of one or more treatment personnel working with a single individual (e.g., Ullman and Krasner, 1965; Ulrich, Stachnik and Mabry, 1966). More recently, however, the desirability of employing behavior modification techniques with individuals in various group settings has been recognized, and increasing effort is being expended in this direction (e.g., Ulrich, Stachnik and Mabry, 1970). A technology--generally identified by the name of its key concept, the token economy--stemming from work with institutionalized psychiatric patients and formalized by Ayllon and Azrin (1968) now exists which retains the principles of behavior modification and permits their systematic application in the group setting.

The token economy has at least three defining characteristics (Krasner, 1970a; 1970b). First is the designation by institutional authorities of those behaviors in which individuals should engage. In part based upon a clear value judgement, the activities identified here are also heavily dependent upon the goals of the program and represent those which will earn reinforcement once the token economy is instituted. Second is a medium of exchange,

objects (tokens) which individuals obtain when they engage in behaviors deemed desirable and which they may exchange for things they desire, the backup reinforcers. The medium of exchange may be tangible or intangible, and has consisted, among other things, of "credit" cards, metallic coins, poker chips, green stamps, and "bank" points. Third are the ways and means utilizing the tokens, the backup reinforcers themselves. These are the things a given individual wants, and can include, among a host of such reinforcers, the opportunity to watch a certain television program, special foods, or a bed to sleep in. The token is employed because it is often not feasible to deliver the backup reinforcers immediately following a desirable behavior, and because it is frequently necessary to arrange the relationship between performance and reinforcement on other than a one-to-one basis. When delivered following a behavior the token effectively mediates the time interval between that behavior and, when later exchanged, the utilization of the backup reinforcers.

Research examining the effectiveness of token economies in a variety of settings has revealed the potential of arranging contingencies relating actions and their consequences in such a fashion. The value of the token economy has been amply demonstrated as both an aid to psychiatric ward maintenance and as a treatment medium (Ayllon and Azrin, 1968; Atthowe and Krasner, 1968; Lloyd and Abel, 1970), and as a technique to facilitate learning and maintain order in both the retarded (e.g., Birnbrauer, Wolf, Kidder and Tague, 1965) and normal (e.g., O'Leary and Becker, 1965) school classroom. More closely related to corrections, token reinforcement has been demonstrated to facilitate educational performance and control disruptive behavior with "pre-delinquent" (Phillips, 1968) and delinquent boys (Cohen, Filipczak and Bis, 1967; Tyler and Brown, 1968), and to serve as an effective rehabilitative regimen with delinquent soldiers (Coleman and Baker, 1969; Boren and Coleman, 1970; Coleman, 1970). Based upon the demonstrated effectiveness of the principles of behavior modification, as embodied in the token economy in related fields; the regressive by-products of existant correctional policies and procedures; and the general failure of corrections to serve as a rehabilitative agency, it appears critically important that the token economy concept be extended to adult corrections and that its consequent usefulness in the field be evaluated.

The Rehabilitation Research Foundation has been involved in the design, implementation, evaluation, and dissemination of innovative correctional programs for a number of years. Up to now, these programs have consisted mainly of the extension of behavior modification and contingency management techniques to counseling, basic education, and vocational skill training in the institutional setting. The Foundation now

proposes to take the next logical step in the utilization of these techniques in corrections: The development and evaluation of a token economy within the institution itself. The proposed experimental-demonstration project will:

1. Establish a token economy in one cell block of a large correctional institution for adult, male offenders (felons).

2. Examine the effectiveness of a system based upon positive reinforcement (the token economy) as an alternative motivator of those behaviors (order and discipline, personal appearance, routine maintenance tasks and work assignments) traditionally insured by threat of punishment and aversive control procedures.

3. Develop a remedial educational program tailored to the correctional setting in which inmates may participate during evening hours and weekends.

4. Determine the impact of various token reinforcement procedures upon participation and progress in the educational program during the inmates' "off-hours."

5. Evaluate the effect of the token economy upon post-release adjustment and recidivism.

Closely related to the proposed token economy project, but not detailed in this proposal, is a projected Correctional Officer Training Program in which three groups of 15 officers each will receive extensive training and practicum experience in the principles of behavior modification. If the token economy is to be viewed as a realistic alternative to existant modes of institutional control, line correctional officers must, with appropriate supervision, be capable of administering such a program. A first step in this direction is to provide the correctional staff with training in the basic principles of behavior modification. The objectives of the Correctional Officer Training Program are to develop a curriculum in behavior modification tailored to the particular needs of correctional personnel; instruct officers in the use of behavior modification techniques; assess the officers' ability to employ, with supervision, these techniques in an on-the-job practicum situation; and determine what carry-over effect, if any, such training has with regard to the techniques they employ in the performance of their duties following the termination of the course. The correctional officers' ability to utilize the principles of behavior modification will, in part, determine the feasibility of establishing a token economy on a wide scale in an institution. In addition, such training may, in and of itself, lessen the officers' reliance upon punishment and aversive control techniques, and increase the utilization of procedures involving positive reinforcement in their day-to-day contacts with inmates.

METHOD

Subjects

Subjects (*S*s) will be 60 individuals selected from the inmate population at Draper Correctional Center at Elmore, Alabama, an all male institution whose population is composed of young, first and second time felons and a relatively small number of older inmates. The 60 *S*s will be divided into two main groups which will, in turn, be subdivided into three subgroups in the following manner:

GROUP A (N=30)

All *S*s in this group will participate in both the token economy project and in a basic education and vocational training program operated at Draper by the Rehabilitation Research Foundation (RRF). They will be partitioned among three subgroups as follows:

Subgroup A-1 (N=10)

Subjects in this subgroup will participate in the token economy project for its full one year duration, and will be concurrently enrolled in the one year basic education and vocational training program conducted by the RRF.

Subgroup A-2 (N=10)

Subjects in this subgroup will participate in the token economy project for the first six months of the one year cycle, and will be concurrently enrolled in a six-month basic education and vocational training program conducted by the RRF.

Subgroup A-3 (N=10)

Subjects in this subgroup will participate in the token economy project for the last six months of the one year cycle, and will be concurrently enrolled in a six-month basic education and vocational training program offered by the RRF.

GROUP B (N=30)

All *S*s in this group will participate in the token economy project and at the same time hold routine institutional work assignments. These *S*s will be excluded from consideration for enrollment in the baisc education and vocational training program operated at Draper by the RRF. They will be partitioned among three subgroups as follows:

Subgroup B-1 (N=10)

Subjects in this group will participate in the token economy project for its full one year duration.

Subgroup B-2 (N=10)

Subjects in this subgroup will participate in the token economy project for the first six months of the one year cycle.

Subgroup B-3 (N=10)

Subjects in this subgroup will participate in the token economy project for the last six months of the one year cycle.

Subjects in both Group A and Group B will be drawn from inmates volunteering for the RRF's basic education and vocational training program, matched as closely as possible on the basis of age, educational level, and race, with their projected date of release from the institution falling within three months of their project termination date. Within the restrictions outlined above, all *S*s will be selected at random from the inmate population.

Facilities

Subjects will be quartered and the project will be conducted in the former basic education area of the previous manpower training project. The area is a converted prison dormitory area with freshly painted white sheetrock walls and adequate florescent lighting and ventilation. Floors range from vinyl asbestos tile to bare concrete. The total area will afford approximately 3,900 square feet of floor space, or 428 cubic feet per man. This is consistent with the standards set by the United States Bureau of Prisons (1949).

The facility occupies the second (top) floor of one of six two-story dormitory wings. Access to the facility is from the ground floor of the prison proper, via two sets of stairs that emerge separately in the main corridor of the experimental unit.

Standard prison steel double-bunk beds and bedding will be provided. The approximate arrangement of beds, showers, toilet facilities, and lavatories are incorporated in the floor plan diagram (refer to Appendix I). More specific details will be determined in relation to the observed needs of the experimental situation. At the end of the observation phase a major evaluation of the facilities will be made which should yield valuable data relevant not only to facility modification but also to later contingency management.

Procedure

The project will be conducted in three distinct and sequential phases. Phase I will consist of an initial observation period; Phase II will involve the institution and maintenance of the token economy; and Phase III will consist of postrelease follow-up. Subgroups A-3 and B-3 will be phased in during the course of Phase II. The research

strategies employed to assess the effects of the experimental manipulations performed in Phase I and Phase II will be drawn from those formalized by Sidman (1960). As such, they will generally consist of the baseline, treatment, return-to-baseline and multi-element baseline procedures with intersubject and/or intrasubject replication. The data generated in Phase III will be subjected to group statistical analysis.

Phase I

Phase I will be approximately two months in duration and will involve four major objectives. The first of these will consist of the development and administration of a Behavior Observation Checklist designed to both identify behaviors engaged in by institutionalized offenders in their living areas and to determine the relative frequency of these behaviors. A first approximation of the Behavior Observation Checklist is presented in Appendix II. During this phase the checklist will be administered on a time sample basis, revised if necessary, rater-rater reliability determined, and the optimal sample interval (in terms of the representativeness of data collected and the staff time involved in administration) determined. The checklist, in its final form, will then be administered throughout the remainder of Phase I and at selected times during Phase II. By so doing it will be possible to identify changes, if any, in inmate behavior over time which occur in response to the establishment, maintenance, and manipulation of the token economy.

Not available in the literature, such data concerning the behavioral repertoire of inmates is also critical for the identification of potential reinforcers; the working hypothesis being that the opportunity to engage in behaviors which normally occur at a high relative frequency will serve as reinforcement for engaging in those behaviors of lesser relative frequency (Premack, 1959; Ayllon and Azrin, 1968). Supplementing the data derived from the checklist will be the results of the Reinforcer Survey Questionnaire (see Appendix III) administered to all resident inmates. A compilation of the relative frequency in which behaviors are engaged, as indexed by the Behavior Observation Checklist, and the relative frequency with which potential reinforcers are identified on the Reinforcer Survey Questionnaire will provide a tentative reinforcer hierarchy and the basis for the first assignment of token exchange values.

The third major objective of this phase entails the determination of the relative frequency in which those activities which will potentially earn tokens are engaged. This will be determined, in part, by evaluation of the data generated by the administration of the Behavior Observation Checklist. In addition, data keyed specifically to the

completion of assigned routine maintenance tasks will be compiled on a daily basis, via the Task Assigned/Completed Checklist presented in Appendix IV. To supplement this, daily data relating either directly or by analogy to selected personal skills (e.g., arising at the appropriate time, leaving the unit so that they may be at "work" on time, maintaining personal appearance, etc.), identified by employers as important in securing and holding employment (Cayton, 1970), will also be collected.

Finally, a prospective basic education curriculum will be devised for each inmate based upon the Individually Prescribed Instructional System being developed and field-tested by the RRF. Once this is completed, the opportunity will be tendered to all inmates to participate as either a student or teaching assistant in the educational program. Data will be collected on the amount of time inmates devote to these activities and their rate of progress during this baseline phase.

Phase II

This phase of the project, which will run for the remaining ten months of the proposed 12-month cycle, will involve an assessment of the effectiveness of the token economy as an alternative to the traditional modes of inmate management and as a medium through which remedial education and behavioral counseling programs may be conducted. Based upon the data collected in Phase I, a first approximation will be made of token production values for to-be-reinforced behaviors, and of token exchange values for backup reinforcers. This approximation will attempt to balance expected behaviors and potential reinforcers so that full participation in the to-be-reinforced activities will earn ample tokens to partake of the privileges available in the unit. Adjustments in production values and exchange values will be made as the need arises.

The token economy itself will be modeled after a checkbook banking system--no durable tokens will be employed. Tokens, or points, will be credited to an inmate's account contingent upon his completion of reinforced tasks and participation in reinforced activities. To engage in behaviors or obtain items serving as reinforcers, each inmate will be required to write and relinquish a check. At the end of each day a new balance will be derived for each inmate based upon his balance carried forward from the preceding day and his earnings and expenditures for the present day (see Appendix V). Data will be kept on performance of assigned tasks, personal skills (see Appendix VI), and participation in the educational program, as well as participation in available unit privileges for comparison with data collected during Phase I. Such comparisons will aid in the evaluation of the

effectiveness of Phase II. A diary of problems encountered during this phase, procedures instituted for their remediation, and the effectiveness of such solutions will be maintained throughout this phase.

In addition, the efficiency of establishing and maintaining, under the conditions of the token economy, a remedial education program within an institutional living area will be examined in detail. Tentative plans call for an evaluation of the potential of employing the institutional inmate–a relatively untapped source of manpower in such education programs–as a teaching assistant; the development of procedures to enable the most effective utilization of these inmates in the education program; an examination of various means of employing programmed material in the correctional setting; and an assessment of how best to employ the token economy as a motivator of learning.

The program itself will stress acquisition of basic reading, language, and mathematical skills. It is expected that inmates not participating in the basic education and vocational skill training program conducted by the RRF will be primarily involved in the acquisition of these fundamentals, with inmates enrolled in the RRF's basic education and vocational training program functioning as teaching assistants. However, the token economy will form the basis for an adjunctive program for those inmates participating in the RRF program. This program will function in cooperation with the RRF's basic education program, which will provide a self-instructional "enrichment" program currently being developed.

Finally, a prerelease behavioral counseling program will be established for inmates within four months of release. Initially this program will focus upon the conditions of parole and the rules and regulations to which the paroled offender is expected to conform. Later, however, the areas covered will be expanded to include the general spheres of employment, leisure time activities, friends, family and women, alcohol, drugs, and how to identify and best refrain from engaging in activities which either themselves or as precursors of other activities will likely result in an inmate's return to prison.

Phase III

The goal of this phase is to assess the effect of the various experimental conditions outlined in the selection of *S*s upon postrelease adjustment and recidivism. To accomplish this four distinct groups will be constructed as follows:

GROUP A (N=30)

This group will consist of all *S*s who participated in both the token economy and the basic education and vocational training program conducted by the RRF.

GROUP B (N=30)

This group will consist of all *S*s who participated in the token economy project but were not enrolled in the basic education and vocational training program conducted by the RRF.

GROUP C (N=30)

This group will consist of *S*s (matched on the basis of age, educational level, race, and release date to those *S*s comprising Groups A and B) who were enrolled in the basic education and vocational training program conducted by the RRF but who did not participate in the token economy project.

GROUP D (N=30)

This group will consist of *S*s (matched on the basis of age, educational level, race, and release date to those *S*s comprising Groups A and B) selected from those inmates who volunteered for, but were not enrolled in, the basic education and vocational training program conducted by the RRF, and who did not participate in the token economy project.

All *S*s will be interviewed within two weeks of their projected release date and at three, six, twelve, and eighteen months following their release from the institution. For those *S*s who locate within a 200-mile radius of Montgomery, Alabama, postrelease contacts will consist of the face-to-face administration of the postrelease interview; those *S*s who reside further than 200 miles from Montgomery will be interviewed either by telephone or mail.

All *S*s will be paid $5.00 for each interview. The prerelease interview will consist of questions pertaining to *S*'s personal history, past familial relationship, criminal record, educational record, training data (if applicable), work history, and prison environmental support in terms of the number of letters and visitors *S* received. All four postrelease interview forms will contain identical items, with the exception that the first postrelease interview form will contain some additional items pertaining only to immediate postrelease circumstances. The subsections of the four postrelease interviews are: personal data, work history, financial problems, companions, family problems, (pertaining to wife, children and/or parents), housing, and public acceptance. Open-ended questions will be kept to

a minimum for ease of data analysis and interpretation; all follow-up data will be analyzed by the RRF's on-site computer.

Information gathered through the postrelease interviews will be supplemented by data derived through administration of the Environmental Deprivation Scale (EDS). This scale was originally developed by Pascal and Jenkins (1961) to assess the extent of environmental deprivation associated with daily behavior patterns in various forms of behavioral deviancy, e.g., skidrow alcholism and ulcer intractibility. The EDS consists of 16 items, forming four clusters–namely, occupation, institutions, interpersonal relations and fear of coping with daily problems. Each item is forced-choice and scored "0" or "1", the former indicating support, the latter deprivation.

The EDS will be applied at four stages or periods of the releasee's life. The first will deal in retrospect with his environment just prior to incarceration. The second will attempt to measure environmental supports and deprivations while in prison. The third will assess his projected environment upon return to the "free world." The fourth and final application of the EDS will take place during several postrelease interviews.

Current plans call for using the EDS with Montgomery-area releasees twice a month. All releasees will have the EDS administered to them at the regular follow-up interview times (3, 6, 12, and 18 months after release). A third instrument, the Maladaptive Behavior Record (MBR) will also be employed at these checkpoints. It provides specific details of maladaptive behaviors, such as fights, arrests, drunkeness and drug usage.

The basic data from the EDS, MBR and the postrelease interviews will serve a twofold function. First, they will provide criterial data against which to validate in-prison intervention and training programs and to assess their degree of transfer or generalization to the world outside the institution. Secondly, these measuring instruments will provide basic feedback into the training programs concerning specific behavioral areas in which difficulties arise and further intervention is needed. For instance, a releasee may have difficulty in behaviorally dealing with his job supervisor. Careful analysis may indicate a need for retraining the releasee in methods of coping with older male authority figures. If data from the EDS and MBR indicate some generality to the problem, a specific intervention program may berequired. Preliminary data indicate a substantial relationship between the EDS and recidivism. Follow-up studies will provide basic data on this pressing problem.

References

Atthowe, J., & Krasner, L. *Preliminary report on the application of contingent reinforcement procedures (token economy) on a chronic psychiatric ward.* **Journal of Abnormal Psychology**, 1968, 73, 37-43.

Ayllon, T., & Azrin, N. H. *The token economy: A motivational system for therapy and rehabilitation.* New York: Appleton-Century-Crofts, 1968.

Azrin, N. H., & Holz, W. C. *Punishment.* In W. K. Honig (Ed.), *Operant behavior: Areas of research and application.* New York: Appleton-Century-Crofts, 1966, 213-270.

Brinbrauer, J. S., Wolf, M. M., Kidder, J. D., & Tague, C. *Classroom behavior of retarded pupils with token reinforcement.* **Journal of Experimental Child Psychology**, 1965, 2, 103-107.

Boren, J. J., & Coleman, A. D. *Some experiments on reinforcement principles within a psychiatric ward for delinquent soldiers.* **Journal of Applied Behavior Analysis**, 1970, 3, 29-38.

Cayton, P. *Barriers to the employment of released male offenders.* Elmore, Alabama: Rehabilitation Research Foundation, 1970.

Clark, R. *Crime in America.* New York: Simon & Schuster, 1970.

Cohen, H. L., Filipczak, J., & Bis, J. *CASE 1: An initial study of contingencies applicable to special education.* Silver Spring, Maryland: Educational Facility Press-IBR, 1967.

Coleman, A. D. *Behavior therapy in a military setting.* **Current Psychiatric Topics**, 1970, 10, 171-178.

Coleman, A. D., & Baker, S. L. *Utilization of an operant conditioning model for the treatment of character and behavior disorders in a military setting.* **American Journal of Psychiatry**, 1969, 125, 101-109.

Draper project final reports, 1968. Elmore, Alabama: Rehabilitation Research Foundation, 1968.

Durkheim, E. *The rules of sociological method,* trans. Sarah A. Solovay & J. H. Mueller. Chicago: University of Chicago Press, 1938, 67-71.

Krasner, L. *Token economy as an illustration of operant conditioning procedures with the aged, with youth, and with society.* In D. J. Lewis (Ed.), *Learning approaches to therapeutic behavior change.* Chicago: Aldine Publishing Company, 1970, 74-101. (a)

Krasner, L. *Behavior modification, token economies, and training in clinical psychology.* In C. Neuringer & J. L. Michael (Eds.), *Behavior modification in clinical psychology.* New York: Appleton-Century-Crofts, 1970, 86-104. (b)

Lloyd, K. E., & Abel, L. *Performance on a token economy psychiatric ward: A two year summary*. **Behavior Research and Therapy**, 1970, **8**, 1-9.

Menninger, R. *The crime of punishment*. New York: The Viking Press, 1968.

O'Leary, R. D., & Becker, W. C. *Behavior modification of an adjustment class: A token reinforcement program*. **Exceptional Children**, 1967, **33**, 637-642.

O'Leary, K. D., Becker, W. C., Evans, M. B., & Saudargas, R. A. *A token reinforcement program in a public school: A replication and systematic analysis*. **Journal of Applied Behavior Analysis**, 1969, **2**, 2-13.

Pascal, G. R. & Jenkins, W. O. *Systematic observation of gross human behavior*. New York: Crune and Stratton, 1961.

Phillips, E. L. *Achievement place: Token reinforcement procedures in a home-style rehabilitation setting for 'pre-delinquent' boys*. **Journal of Applied Behavior Analysis**, 1968, **1**, 213-223.

Premack, D. *Toward empirical behavior laws: Positive reinforcement*. **Psychological Review**, 1959, **66**, 219-233.

Sidman, M. *Tactics of scientific research*. New York: Basic Books, 1960.

Skinner, B. F. *The technology of teaching*. New York: Appleton-Century-Crofts, 1968.

Tyler, V. O., & Brown, G. D. *Token reinforcement of academic performance with institutionalized delinquents*. **Journal of Educational Psychology**, 19668, **59**, 164-168.

Ullman, L. P., & Krasner, L. *Case studies in behavior modification*. New York: Holt, Rinehart & Winston, 1965.

Ulrich, R., Stachnik, T., & Mabry, J. *Control of human behavior*. Volume I. Glenview, Illinois: Scott, Foresman and Company, 1966.

Ulrich, R., Stachnik, T., & Mabry, J. *Control of human behavior*. Volume II. Glenview, Illinois: Scott, Foresman and Company, 1970.

United States Bureau of Prisons. *Handbook of Correctional Institution Design and Construction*. Washington, D. C.: United States Bureau of Prisons, 1949.

APPENDIX I

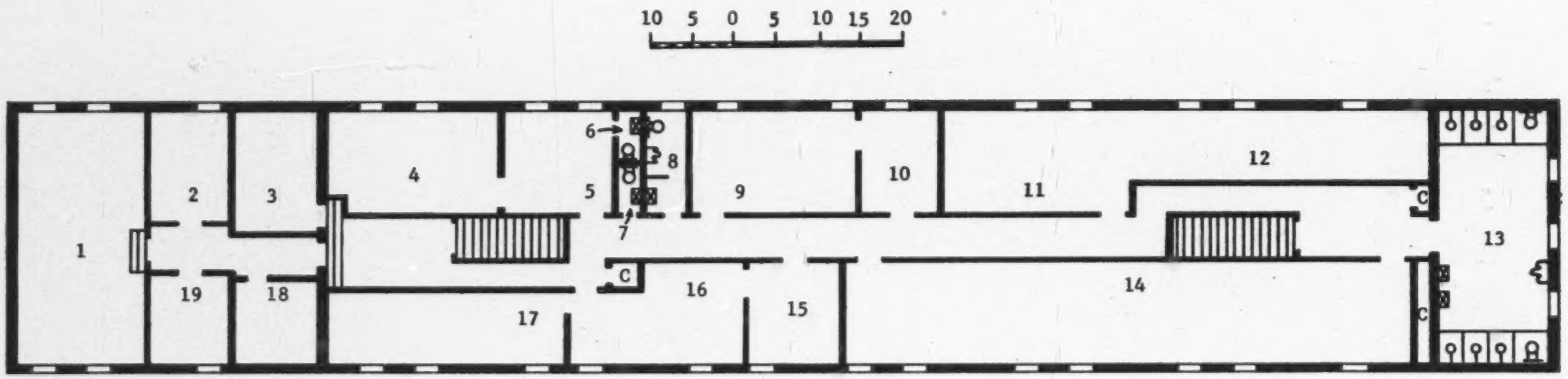
Floor Plan of Ecological Unit

SCHEDULE OF ROOMS

Room No.	Description
1	Classroom (15'4" x 30'0")
2	Study Room (9'4" x 13'0")
3	Office (10'0" x 14'6")
4	Office (21'4" x 12'0")
5	Free room (13'0" x 12'0")
6	Bath with toilet and lavatory
7	Bath with toilet and lavatory
8	Bath with toilet, lavatory, and urinal
9	Recreation Room (19'6" x 12'0")
10	Library (9'4" x 12'0")
11	Small dormitory, front (22'0" x 12'0")
12	Small dormitory, back (34'10" x 8'6")
13	Main bath with 6 shower stalls, 2 toilets, 3 lavatories, and double urinal
14	Large dormitory (67'6" x 12'0")
15	Store (11'0" x 12'0")
16	Lounge (12'0" x 12'0")
17	Television Room (27'2" x 8'6")
18	Office (10'0" x 10'0")
19	Testing Room (9'4" x 10'6")

LEGEND OF SYMBOLS

Symbol	Description
	Toilet
	Shower stall
	Lavatory
	Urinal
C	Closet
	Window



I-1

APPENDIX II

Behavior Observation Checklist

(Form 4)

Observer:_____ Date: _____ Time: _____

INSTRUCTIONS

Work through the unit, checking each area. Note with hash marks the number of inmates engaged in each of the behaviors listed below.

		Count	Total
1.	Angry or rageful		
2.	Asleep - lying down		
3.	Asleep - sitting		
4.	Browsing in library		
5.	Dressing or undressing		
6.	Defacing or destroying property		
7.	Drinking		
8.	Eating		
9.	Exercising		
10.	Games and puzzles: group		
11.	Games and puzzles: individual		
12.	Games and Puzzles: watching		
13.	Fighting		
14.	Grooming		
15.	Horseplay		
16.	"Hot railing"		
17.	Ill		
18.	Injured		
19.	Listening to music		
20.	Listening to radio - educational; news		
21.	Listening to radio - religious		
22.	Listening to radio - sports		
23.	Listening to radio - others		
24.	Listening to others - educational		
25.	Listening to others - religious		
26.	Listenint to others - sex		
27.	Listening to others - others		
28.	Lying down - awake		
29.	Maintenance - house		
30.	Maintenance - unit		
31.	Participating in hobby		
32.	Reading - book		
33.	Reading - letter		
34.	Reading - papers or magazines		
35.	Reading - MDT related		

20.	Listening to radio - educational; news		
21.	Listening to radio - religious		
22.	Listening to radio - sports		
23.	Listening to radio - others		
24.	Listening to others - educational		
25.	Listening to others - religious		
26.	Listenint to others - sex		
27.	Listening to others - others		
28.	Lying down - awake		
29.	Maintenance - house		
30.	Maintenance - unit		
31.	Participating in hobby		
32.	Reading - book		
33.	Reading - letter		
34.	Reading - papers or magazines		
35.	Reading - MDT related		
36.	Recreation - participating		
37.	Recreation - watching		
38.	Running		
39.	Sitting		
40.	Standing		
41.	Swearing or cursing		
42.	Talking with others - educational		
43.	Talking with others - religious		
44.	Talking with others - sex		
45.	Talking with others - other		
46.	Threatening someone		
47.	Urinating or defecating		
48.	Walking		
49.	Watching TV - educational; news		
50.	Watching TV - sports		
51.	Watching TV - religious		
52.	Watching TV - other		
53.	Writing - letter		
54.	Writing - other		
55.	Yelling, screaming, making noise		
56.	Student activities		
57.	Tutor activities		
58.			
59.			
60.			
61.			
62.			
63.			
64.			
65.			

APPENDIX III

Reinforcer Survey Questionnaire

Name: _____ Date: _____

Check #4 if the item is something you would work very hard to obtain.

Check #3 if the item is something you would work (but not very hard) to obtain.

Check #2 if the item is something you would do only a minimum amount of work to obtain.

Check #1 if the item is something you would do absolutely no work to obtain.

Item Value Rating Scale	4	3	2	1
1. Art and paint sets and materials				
2. Ball point or fountain pens				
3. Bedspreads and pillows (free-world)				
4. Belts				
5. Blankets (electric)				
6. Bracelets, rings, watches				
7. Brief cases				
8. Brushes, hair				
9. Calendars				
10. Cameras				
11. Can openers				
12. Cigarettes				
13. Clothes (pants, shoes, underwear, shirts, etc.)				
14. Coats (winter)				
15. Cups and plastic glasses				
16. Curtains				
17. Cushions				
18. Dictionaries				
19. Envelopes and writing paper (free-world)				
20. Facials and shampoos				

Item Value Rating Scale	4	3	2	1
21. Fans (electric)				
22. Food (canned goods, etc.)				
23. Games (cards, checkers, chess, etc.)				
24. Gloves, work				
25. Hats (wide brimmed, etc.)				
26. Hot plates				
27. Lamps				
28. Law Books				
29. Magazines				
30. Manicure sets				
31. Mirrors				
32. Models (planes, cars, ships, etc.)				
33. Musical instruments				
34. Novels				
35. Paper pads				
36. Picture frames				
37. Pipes and tobacco				
38. Radios				
39. Rain coats				
40. Razors and razor blades				
41. Records				
42. Record players				
43. Rugs and carpets				
44. Shoeshine kits				
45. Sports equipment (basketballs, shoes, etc.)				
46. Stamps (postage)				
47. Sunglasses				
48. Tableware (plastic knives, forks, spoons)				

APPENDIX IV

Task Assigned/Completed Checklist

ASSIGNED UNIT MAINTENANCE TASKS

MAINTENANCE TASK	ASSIGNED TO:
LARGE TEACHING ROOM:	
1. Dust and arrange furniture Empty trash cans	
2. Sweep floor Mop floor	
TESTING ROOM:	
1. Dust and arrange furniture Empty trash cans	
2. Sweep floor Mop floor	
TEACHING MACHINE ROOM:	
1. Dust and arrange furniture Empty trash cans	
2. Sweep floor Mop floor	
EDUCATION OFFICE:	
1. Dust and arrange furniture Empty trash cans	
2. Sweep floor Mop floor	
DIRECTOR'S OFFICE:	
1. Sweep floor and empty trash cans Mop floor	
RESEARCH OFFICE:	
1. Dust and arrange furniture Empty trash cans	
2. Sweep floor Mop floor	
UNIT FOYER AND CONNECTED HALLS:	
1. Dust and arrange furniture Empty trash cans	
2. Sweep foyer and halls Mop foyer and halls	

MAIN HALLWAY:

1. Empty small trash cans
   Empty large trash can

2. Sweep floor (front half)
   Mop floor (front half)

3. Sweep floor (back half)
   Mop floor (back half)

TELEVISION ROOM:

1. Sweep floor
   Empty trash cans

2. Mop floor
   Arrange furniture

"FREE ROOM":

1. Dust and arrange furniture
   Empty trash cans

2. Sweep floor
   Mop floor

SMALL BATHROOMS #1 AND #2:

1. Clean commodes
   Clean sinks and mirrors

2. Sweep floors
   Mop floors

STUDENT BATHROOM:

1. Clean commode and urinal
   Clean sink and mirror

2. Sweep floor
   Mop floor

POOL HALL:

1. Dust and arrange equipment and furniture
   Empty trash cans

2. Sweep floor
   Mop floor

LIBRARY:

1. Dust furniture and empty trash cans
   Sweep and mop floor

LARGE DORMITORY:

1. Sweep floor (front half)
   Mop floor (front half)

LARGE DORMITORY: Cont.

2. Sweep floor (back half)
   Mop floor (back half) _____

3. Empty trash cans (front half
   Empty trash cans (back half) _____

SMALL DORMITORY:

1. Sweep floor
   Mop floor _____

2. Empty trash cans in small Dormitory
   Empty trash cans in Main Shower Room _____

MOP ROOM:

1. Arrange materials
   Sweep and mop floor _____

MAIN SHOWER ROOM:

1. Clean commodes
   Clean sinks and mirrors _____

2. Clean showers
   Clean urinal _____

3. Sweep floor
   Mop floor _____

SLEAN STEPS AND LANDING:

1. Sweep front steps and landing
   Mop front steps and landing _____

2. Sweep steps and landing (back)
   Mop steps and landing (back) _____

SPECIAL ASSIGNMENTS:

To be assigned by research staff _____

_____

_____

_____

APPENDIX V

Point Record

POINT RECORD

NAME	AMOUNT CARRIED FOR.	EARNINGS										Time Off
		Up On/Off Unit Time/On Time	Bed Made	Personal Appearance	House Neat And Clean	Point Balance	Student Activities	Tutor Activities	Assigned Tasks	Other	TOTAL	

Date _____

I N T R E C O R D

			EXPENDITURES								GRAND TOTAL
	Other	TOTAL	Time Off Unit	Lounge	Recreation Room	Television Room	Store	Interest / Fines	Other	TOTAL	

V-1

APPENDIX VI

Assigned Tasks and Personal Skills Record

DAILY RECORD OF RESIDENTS REPORTING COMPLETION OF ASSIGNED MAINTENANCE TASKS AND PE TE

ASSIGNED MAINTENANCE TASKS

NAME	Large Teaching Room	Testing Room	Teaching Machine Room	Education Office	Director's Office	Research Office	Unit Foyer and Halls	Main Hall	Television Room	"Free" Room	Small Bathrooms 1 and 2	Student Bathroom	Pool Room	Library	
TOTALS															

ANCE TASKS AND PERSONAL SKILLS - Enter "1" or "2" - Do Not Enter "0"

DATE

AINTENANCE TASKS

PERSONAL SKILLS

Small Bathrooms 1 and 2

Student Bathroom

Pool Room

Library

Large Dormitory

Small Dormitory

Mop Room

Main Shower Room

Clean Steps and Landing

Special Assignments

Up/Off Unit on Time

Bed Made

Personal Appearance

House Neat and Clean

Est. Point Balance

Point Balance

VI-1

ERIC Clearinghouse

MAR 14 1972

on Adult Education